**Amendments to the Claims**:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1.-8. (Canceled)

9. (New) A silicon carbide-based catalytic body comprising:

a porous body of given shape comprising a first bonded structure formed by bonding a large number of silicon carbide particles as an aggregate to each other in a state that a large number of fine pores are present; and

a catalyst containing an alkali metal and/or an alkaline earth metal, loaded on the porous body,

wherein the catalyst is loaded via a crystalline coating film comprising an oxide and formed on at least part of the surfaces of the silicon carbide particles forming the first bonded structure.

10. (New) A silicon carbide-based catalytic body comprising:

a porous body of given shape comprising a second bonded structure formed by bonding a large number of silicon carbide particles as an aggregate and metallic silicon as a binder in a state that a large number of fine pores are present; and

a catalyst containing an alkali metal and/or an alkaline earth metal, loaded on the porous body,

wherein the catalyst is loaded via a crystalline coating film comprising an oxide and formed on at least part of the surfaces of the silicon carbide particles and/or the metallic silicon, forming the second bonded structure.

11. (New) A silicon carbide-based catalytic body according to Claim 9, wherein the crystalline coating film contains $SiO_2$.

12. (New) A silicon carbide-based catalytic body according to Claim 10, wherein the crystalline coating film contains $SiO_2$.

13. (New) A silicon carbide-based catalytic body according to Claim 11, wherein the crystalline coating film comprises cristobalite and/or mullite.

14. (New) A silicon carbide-based catalytic body according to Claim 12, wherein the crystalline coating film comprises cristobalite and/or mullite.

15. (New) A silicon carbide-based catalytic body according to Claim 9, wherein the given shape of the porous body is a honeycomb shape.

16. (New) A silicon carbide-based catalytic body according to Claim 10, wherein the given shape of the porous body is a honeycomb shape.

17. (New) A process for producing a silicon carbide-based catalytic body, the process comprising:

forming a raw material mixture containing silicon carbide particles and metallic silicon into a formed body of a given shape;

calcinating and firing the formed body;

heat treating the formed body in an oxygen-containing atmosphere; and then

loading, on the formed body, a catalyst containing an alkali metal and/or an alkaline earth metal,

to obtain a catalytic body comprising:

a porous body comprising a second bonded structure formed by bonding a large number of the silicon carbide particles and the metallic silicon in a state that a large number of fine pores are present; and

the catalyst loaded on the porous body via a crystalline coating film comprising an

oxide and formed on at least part of the surfaces of the silicon carbide particles and/or the metallic silicon, forming the second bonded structure.

18. (New) A process for producing a silicon carbide-based catalytic body according to Claim 17, wherein the heat treatment is conducted at a temperature of 800 to 1,400°C.

19. (New) A process for producing a silicon carbide-based catalytic body according to Claim 17, wherein the given shape is a honeycomb shape.